THE INFLUENCE OF RADIATION ON THE SOLAR CELL EFFICIENCY

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ABSTRACT

The use of a solar cell in space requires the knowledge of its behaviour under high-energy partial radiation.This radiation in space produces defects in semiconductor that cause a reduction in solar cell power output. In this paper we present the method for predicting the behaviour of a solar cell for satellite applications. Modeling has been performed for several types of GaAs and GaInP single cells and results are compared with experimental data obtained for electron and proton irradiations.